Schedule

23nd International School-Conference

«Magnetic Resonance and its Applications.

Spinus-2026»

30 March - 3 April, 2026
St. Petersburg

	MONDAY –30 March, 2026
Chairman	
9:00-10:00	**Registration**
10:00-10:10	**Opening**
10:10-10:50	**William Price (Sydney, Australia)** **Lecture:** Problems with sample shapes and sizes in NMR experiments
10:50-11:10	**Sergey Dvinskikh (Stockholm, Sweden)** **Oral report:** Ion transport in liquid crystal electrolytes: molecular insights from NMR spectroscopy.
11:10-11:25	**Adeliya Garaeva (Kazan, Russia)** **Oral report:** Spin kinetics of ^{3}He in contact with nanosized powder PrF_3.
11:25-11:40	**Alexander Makarchenko (Kazan, Russia)** **Oral report:** Study of the helium-3 nuclear polarization process by the PAMP method at various temperatures and RF plasma frequencies.
11:40 – 12:00	**COFFEE BREAK**
Chairman	
12:00-12:40	**Yury Bunkov (Moscow, Russia)** **Lecture:** Magnon laser and its application
12:40-13:00	**Georgii Bochkin (Chernogolovka, Russia)** **Oral report:** Impact of environment on quantum correlations in two-spin systems with dipole-dipole interactions

13:00 – 13:20	**Kirill Tsiberkin (Perm, Russia)** **Oral report:** Nonlinear transition under short transverse pulse in classical dipole simulation
13:20 – 13:35	**Razil Ziatdinov (Kazan, Russia)** **Oral report:** Calculation of interaction parameters of Pu^{3+} ions with spins of fluorine nuclei in CaF_2
13:35 – 13:50	**Georgii Andreev (Kazan, Russia)** **Oral report:** A magnetocaloric model for the magnetic hysteresis in dysprosium tetrafluoride
13:50 – 14:05	**Polina Zefirova (Saint Petersburg, Russia)** **Oral report:** ^{1}H NMR spectroscopy application for determination of the structure and catalytic behavior of polyelectrolytes
14:05 – 15:00	**LUNCH**
Chairman	
15:00 – 15:15	**Anna Dyatlovich (Saint Petersburg, Russia)** **Oral report:** Multichannel NMR magnetometer for low-field MRI systems. Schematic design
15:15 – 15:30	**Alexander Fedotov (Saint Petersburg, Russia)** **Oral report:** Development and testing of gradient power amplifiers for a low-field MRI system
15:30 – 15:45	**Kristina Popova (Saint Petersburg, Russia)** **Oral report:** Cylindrical Metasurface for Efficient Travelling-wave MRI at 7T
15:45 – 16:00	**Valeria Raevskaya (Novosibirsk, Russia)** **Oral report:** Effect of isotopic substitution on dalfampridine hyperpolarization via the SABRE technique
16:00– 16:20	**Evelio Rafael Gonzalez Dalmau (Havana, Cuba)** **Oral report:** Quantitative descriptors space: a basic platform for qMRI
16:20 – 16:40	**Manuel Arsenio Lores Guevara (Santiago de Cuba, Cuba)** **Oral report:** A multi-model analysis of proton magnetic relaxation in hemoglobin solutions
16:40– 17:00	**Carlos Cabal Mirabal (Havana, Cuba)** **Oral report:** Molecular and magnetic relaxation processes during Hemoglobin S aggregation
17:00 – 17:20	**COFFEE BREAK**
18-00 – 22:00	**Welcome Party**
	TUESDAY – 31 March, 2026
Chairman	
10:00 – 10:40	**Elena Charnaya (Saint Petersburg, Russia)** **Lecture:** Recent applications of NMR for studies of nanostructured and bulk metals and alloys

10:40 – 11:00	**Anastasiia Antonenko (Saint Petersburg, Russia)** **Oral report:** Influence of nontrivial topology on ^{125}Te NMR spectra in the *Td*-WTe_2 single crystal
11:00 – 11:15	**Ekaterina Kovycheva (Perm, Russia)** **Oral report:** Simulation of Rabi oscilations in low-scale spin models
11:15 – 11:40	**Ke Xu (Siegen, Germany)** **Lecture:** Low cost and low maintenance solid-state nuclear magnetic resonance applied to paramagnetic Lithium detection
11:40 – 12:00	**COFFEE BREAK**
Chairman	
12:00 – 12:40	**Daniil Kolokolov (Novosibirsk, Russia)** **Lecture:** Guest mobility and molecular sieving mechanism of C3-C4 hydrocarbons in porous metal-organic frameworks probed by solid state ^{2}H NMR and Molecular Dynamics
12:40 – 12:55	**Nikita Slesarenko (Chernogolovka, Russia)** **Oral report:** Studying the mechanism of lithium cation transfer in solvate-ion electrolyte systems based on tetraglyme and lithium salt by NMR
12:55– 13:10	**Ilya Yakovlev (Novosibirsk, Russia)** **Oral report:** Increased acidity of silicoaluminophosphate BSAPO-11 according to multinuclear solid-state NMR
13:10 – 13:25	**Nikolay Platonov (Kazan, Russia)** **Oral report:** NMR ^{133}Cs in $CsPbBr^{3}$+Ag perovskites crystals
13:25 – 13:40	**Olga Babanova (Ekaterinburg, Russia)** **Oral report:** NMR study of fast anion reorientations in $Y(BH_4)_3 \cdot xNH_3$ (x = 3 and 7)
13:40 – 14:00	**Georgy Mozzhukhin (Gebze-Kocaeli, Turkey)** **Oral report:** Detection of concealed energetic materials by nuclear quadrupole resonance
14:00 – 15:00	**LUNCH**
Chairman	
15:00 – 15:40	**Kev Salikhov (Kazan, Russia)** **Lecture:** Alternative Calculation of EPR Spectra: Collective Modes in Spectral Diffusion
15:40–16:00	**Daria Pomogailo (Moscow, Russia)** **Oral report:** EPR monitoring of the catalytic Michael addition reaction
16:00– 16:20	**Gaspar Kocharyan (Yerevan, Armenia)** **Oral report:** Antiradical activity of catecholamines: insights from kinetic EPR measurements
16:20–16:35	**Anelia Kadikova (Kazan, Russia)** **Oral report:** Ferromagnetic resonance and inverse spin-Hall effect in $Ni_{80}Fe_{20}/Mn_xPt_{1-x}$ bilayer
16:35–16:50	**Allisher Vasilev (Saint Petersburg, Russia)** **Oral report:** Influence of different magnetic fields on gallium texture

16:50-17:00	**CONFERENCE PHOTO**
17:00–17:30	Oral blitz reports of young scientists
17:30-19:30	**POSTER SESSION I**
	WEDNESDAY – 1 April, 2026
	Excursion
	THURSDAY – 2 April, 2026
Chairman	
10:00 – 10:40	**Vladimir Polshakov (Moscow, Russia)** **Lecture:** NMR guided strategies for target oriented drug discovery
10:40 – 10:55	**Sergey Sviyazov (Novosibirsk, Russia)** **Oral report:** ^{13}C hyperpolarization of acetoaccetate using PHIP-SAH
10:55– 11:10	**Nazim Mustafin (Novosibirsk, Russia)** **Oral report:** Hyperpolarization of nitrate by PHIP-SAH
11:10– 11:25	**Alexey Vopilovskiy (Novosibirsk, Russia)** **Oral report:** Theoretical study of long-lived state relaxation in trans-azobenzene with two ^{15}N nuclear isotopes
11:25– 11:40	**Anna Yi (Novosibirsk, Russia)** **Oral report:** Efficient ^{15}N hyperpolarization at millitesla magnetic fields by reversible exchange
11:40 – 12:00	**COFFEE BREAK**
Chairman	
12:00 – 12:40	**Ilya Gridnev (Moscow, Russia)** **Lecture:** Mechanism of asymmetric autoamplifying Soai Reaction studied by combination of NMR experiments and DFT computations
12:40 – 12:55	**Savelii Levit (Saint Petersburg, Russia)** **Oral report:** NMR analysis of surfactants characteristics based on methacrylic acid
12:55– 13:10	**Edem Chakalov (Saint Petersburg, Russia)** **Oral report:** Proton dynamics in the coupled OHO(–) and OHN(+) bonds in complexes of phosphinic acid with pyridines
13:10 – 13:25	**Mark Smirnov (Kaliningrad, Russia)** **Oral report:** Study of the effects of gold nanoparticles of different shapes on the structure of L-tryptophan using NOESY

13:25 – 13:45	**Natalia Yevlampieva (Saint Petersburg, Russia)** **Oral report:** Relaxivities of metallofullerenols and their complexes with nanodiamonds in aqueous dispersions
13:45 – 14:05	**Roman Skoryunov (Ekaterinburg, Russia)** **Oral report:** Lithium diffusion in intercalated titanium diselenides: NMR study
14:05 – 15:00	**LUNCH**
Chairman	
15:00–15:20	**Leonid Grunin (Yoshkar-Ola, Russia)** **Oral report:** NMR relaxation time T_2 as a measure of entropy
15:20–15:40	**Cengiz Okay (Istanbul, Turkey)** **Oral report:** Time-domain NMR detection of apple juice adulteration
15:40–16:00	**Pavel Kupriyanov (Gebze, Turkey)** **Oral report:** Proposal for detection of axion-induced spin precession by Earth's field continuous NMR technique
16:00–16:15	**Nikita Litovskikh (Novosibirsk, Russia)** **Oral report:** Precise calibration of the 180° pulse based on the free induction decay shape under strong radiation damping conditions
16:15–17:00	Oral blitz reports of young scientists
17:00-18:45	**POSTER SESSION II**
19:15–22:00	**Conference Dinner**
	FRIDAY – 3 April, 2026
Chairman	
10:00 – 10:30	**Anton Cherkasov (Ekaterinburg, Russia)** **Lecture:** The development and results of magnetic resonance technology and instruments
10:30 – 10:50	**Oleg Shavykin (Saint Petersburg, Russia)** **Oral report:** Investigation of complexation of fullerenols with Lys2Gly peptide dendrimer provided via MD simulation
10:50–11:05	**Vladimir Bazaikin (Dresden, Germany)** **Oral report:** Features of dendrimer diffusion in melt: Full-atomistic simulation
11:05–11:20	**Naira Gromova (Saint Petersburg, Russia)** **Oral report:** Diffusion properties of melt of poly(propylene imine) dendrimers
11:20–11:40	**Galina Kupriyanova (Kaliningrad, Russia)** **Oral report:** Use of the Hückel method for calculating carbon structures and problems of predicting NMR chemical shifts

11:40– 12:00	**COFFEE BREAK**
Chairman	
12:00 – 12:30	**Peter Tolstoy (Saint Petersburg, Russia)** **Lecture:** Bridging proton delocalization in short hydrogen bonds: effects in ^{1}H NMR spectra
12:30 – 12:50	**Olga Pestova (Saint Petersburg, Russia)** **Oral report:** Effect of paramagnetic additive on chemical shifts of NMR spectral lines (^{1}H, ^{13}C, ^{14}N) and ion mobility in the system $Co(NO_3)_2 \cdot 6H_2O$–$BmimNO_3$
12:50 – 13:05	**Petr Fetin (Saint Petersburg, Russia)** **Oral report:** NMR spectroscopy in the study of comb-like polyelectrolytes
13:05 – 13:20	**Tatiana Zhalnina (Novosibirsk, Russia)** **Oral report:** Phase behavior and ionic mobility of the $[C_8C_2C_2$-ND][TFSI] ionic liquid, neat and impregnated into the MIL-100(Al) metal-organic framework studied by ^{2}H NMR spectroscopy
13:20 – 13:35	**Yana Denisova (Novosibirsk, Russia)** **Oral report:** Probing anion basicity effects on cation dynamics and hydrogen bonding in phosphonium ionic liquids via ^{2}H NMR
13:35 – 13:50	**Fakhriyya Abdullayeva (Baku, Azerbaijan)** **Oral report:** Synthesis and properties of cationic ionic liquid monomer
13:50 – 14:10	**Sergey Vasil'ev (Chernogolovka, Russia)** **Oral report:** Interrelation of dipolar spin dynamics and multiple quantum dynamics of two-spin system with dephasing relaxation
14:10 – 15:00	**LUNCH**
15:00 – 15:40	**Yury Bunkov (Moscow, Russia)** **Lecture:** Elasticity of the magnon Bose-Einstein condensate
15:40– 16:20	**Awarding, Closing and "Related Phenomena"**

POSTER SESSION I (TUESDAY, 17:30-19:30)		
1	Veronica Achintseva	FEATURES OF SOLID-PHASE SYNTHESIS OF Gd2-xRexTi2O7 AND Gd1-xRexTiO3 TITANATES
2	Omar Alkhuder	Phosphine Oxides as Probes for Hydrogen Bonding: A Solid-State Study of Complexes with Substituted Phenols Using XRD and 31P NMR
3	Alina Araslanova	APPLICATION OF NMR METHODS TO CONTROL THE SYNTHESIS AND OPTIMIZATION OF THE STRUCTURE OF SORBENTS BASED ON MAGNETIC NANOPARTICLES MODIFIED WITH IONIC LIQUIDS
4	Anastasia Batueva	Observation of twinning in YAlO3 crystals by EPR using transition ion and rare-earth Dy3+ ion signals
5	Anton Burovikhin	CALCULATION OF THE AMPLITUDE–FREQUENCY RESPONSE OF GRADIENT MAGNONIC CRYSTALS
6	Sergey Cheremensky	The effect of solution dilution on the microstructure and molecular mobility in LiCl-CsCl-H2O ternary system by molecular dynamics simulations
7	Danil Dubeshko	Study of a multicomponent magnetic system at different timescales: ESR, 57Fe Mössbauer spectroscopy, magnetometry
8	Anastasiia Elizarova	Investigation of the Dynamic Properties of Gradient Copolymers by Brownian Dynamics simulations
9	Anastasiia Elizarova	Computer Simulation by Brownian Dynamics of the Structural Characteristics of Gradient Copolymers
10	Ilya Grishanovich	Optimization of the delay time between pulses on 31P cores to study the functional composition of lignin
11	Roman Haponchyk	INDUCED NONLINEAR PHASE SHIFT IN THE GRADIENT MAGNONIC CRYSTAL
12	Timur Ivanenko	Probing the water dynamics in wheat grains by relaxation and diffusion NMR
13	Arina Kalmykova	PHASE DIAGRAM OF THE Ga-In ALLOY UNDER NANOCONFINEMENT
14	Irina Karpushkina	Computer Simulation of Interaction of GED and AED Peptide Molecules with KRH or KHR Dendrimer in Water
15	Daniil Khroshin	NUMERICAL MODELING OF SPIN-WAVE DISPERSION IN A RECTANGULAR FERROMAGNETIC WAVEGUIDE
16	Zlata Korovina	BENCHMARKING OF MAGNONIC RESERVOIR COMPUTING WITH NARMA10
17	Maksim Menshikov	CAPACITIVE DILATOMETER FOR MEASURING MAGNETOSTRICTION
18	Anna Menshova	NMR-STUDY OF STIMULI-RESPONSIVE IONIC LIQUIDS EXHIBITING CHROMISM
19	Dmitriy Mizyulin	The effect of hydrogen-deuterium isotopic substitution on the molecular mobility in aqueous solutions of europium nitrate by molecular dynamics simulations
20	Dmitriy Mizyulin	T1–T2 correlation for probing acidity of microporous and micro-/mesoporous zeolites
21	Nina Djapic	DIHYDROXYLATION OF THE LATERAL VINYL GROUP IN A TETRAPYRROLE FROM THE PERSPECTIVE OF A PROTON SPECTRA
22	Nikolay Anisimov	Real-time MRI of the articulatory organs and lungs during speech production
23	Denis Nefedov	31P NMR STUDIES OF BLOOD SERUM TAKEN FROM PATIENTS WITH MULTIPLE MYELOMA
24	Dmitry Cheshkov	The Origin of Mirror Symmetry in High-Resolution NMR Spectra
25	Andrei Komolkin	CYLINDRICAL DISTRIBUTION FUNCTION FOR STUDYING THE STRUCTURE OF POLYMER MELTS
26	Lilian Somoano Delgado	Blood Viscosity: A Predictive Factor for Preeclampsia

POSTER SESSION II (THURSDAY, 17:00-18:45)			
1	Artemiy	Nichugovskiy	Facilitating Total Lineshape Analysis: FOMA & ANATOLIA-X
2	Ilya	Pilipenko	The application of NMR spectroscopy for identification of the structures of 6-methyl-2-nitro-3-(trichloromethyl)-2,3-dihydro-4H-furo[3,2-c]pyran-4-one and its dehydrochlorination product
3	Anastasia	Rakova	INTERACTION OF LOVASTATIN WITH TRANSITION METAL IONS BY NMR SPECTROSCOPY AND MOLECULAR DYNAMICS SIMULATIONS
4	Andrej	Rochev	Nature of 75As spin-lattice relaxation in a GaAs semi-insulator single crystal
5	David	Rozin	SPECTRAL FEATURES OF SUBSTITUTED 2-(NITROMETHYL)PENTANONES CONTAINING AN ASYMMETRIC CARBON ATOM
6	Yulia	Shilova	Low-field Bench-top NMR study of PEI-coated magnetic iron oxide nanoparticles
7	Yulia	Slesareva	BEHAVIOR OF ACETONITRILE INTERCALATED INTO GRAPHITE OXIDE STUDIED BY 1H NMR
8	Lilian	Somoano Delgado	Blood Viscosity: A Predictive Factor for Preeclampsia
9	Anna	Stepanova	Determination of the 1-(2-nitrovinyl)-3-phenylpyrrolidine structure using NMR spectroscopy
10	Makar	Syrenkov	EVALUATION OF THE DEGREE OF DEAROMATIZATION OF TRANSFORMER OIL BY NMR SPECTROSCOPY
11	Artyom	Tarasov	Comparison of Gadolinium Effect on Statins by NMR spectroscopy
12	Anastasia	Troshkina	Study of the complexation of Gd3+, Ni2+, and Zn2+ Ions with Pravastatin by NMR Spectroscopy.
13	Daria	Tsukhlova	FEATURES OF SELF-DIFFUSION AND NUCLEAR MAGNETIC RELAXATION IN AQUEOUS SUGAR SOLUTION SYSTEMS
14	Milosh	Ubovich	The influence of presence of concomitant water on microstructure and molecular mobility in mixtures of ethylammonium and aluminum nitrates by molecular dynamics simulation data
15	Maxim	Uchaev	Optically detected magnetic resonance of Erbium ions in Yttrium-Aluminum Garnet
16	Maxim	Yefimov	NMR-identification of furan/pyran heterocycles in polymeric chains of different nature
17	Ekaterina	Zaitseva	NMR STUDY OF THE ANTIMICROBIAL PEPTIDE ECAMP3
18	Alina	Zaitseva	Molecular Dynamics of Interaction of EDL/ED Oligopeptide Molecules with LysArgHis/LysHisArg Peptide Dendrimers
19	Elvira	Ziangirova	The use of NMR magnetometry to detect the remains of foundations of demolished buildings and technical underground utilities.
20	Anton	Mazur	USING SOLID-STATE NMR SPECTROSCOPY TO STUDY OF AN UNKNOWN VESSEL FRAGMENT RECOVERED FROM THE BOTTOM OF THE BALTIC BAY
21	Ivan	Mershiev	14N NQR study of urea citrate and urea succinate cocrystals
22	Kirill	Nerinovski	APPLICATION OF 1H AND 17O NMRD TO HYDRATION OF METALLOPROTEINS
23	Anastasia	Nikitina	EPR of magnetic iron oxide nanoparticles for biomedical diagnostics
24	Sabina	Seidova	EXTRACTION PURIFICATION OF TRANSFORMER OIL USING A DEEP EUTECTIC SOLVENT: FTIR EVALUATION OF PROCESS EFFICIENCY
25	Konstantin	Tyutyukin	Orientational mobility of ions in a solution of lithium salt TFSI in the ionic liquid BMPyrrTFSI according to NMR data.
26	Elnara	Makhmudova	DETERMINATION OF THE STRUCTURE OF ESTERS BASED ON DICYCLOPENTADIENE BY SPECTRAL METHODS